# Before the FEDERAL COMMUNICATIONS COMMISSION Washington, DC 20554

In the Matter of	)
Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act	) ) ) ) ) GN Docket No. 10-159 ) ) )
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### REPLY COMMENTS OF FREE PRESS

S. Derek Turner Free Press 501 Third Street, NW Suite 875 Washington, DC 20001 202-265-1490

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#### **SUMMARY**

It is clear from their responses to the Commission's request for comment that certain large broadband providers wish to undermine the considerable progress made by the Commission in its efforts to more faithfully implement the directives of Section 706. In doing so, these incumbents not only misinterpret the relevant legislative language, but do so by relying on old, thoroughly refuted evidence to justify their assertion that deployment is reasonable and timely. These efforts are centered on convincing the Commission to *lower* the newly defined threshold speeds needed to offer consumers advanced telecommunications capability. This lobbying for mediocrity is a transparent attempt to have the Commission include in its Section 706 assessment connections that clearly are not robust enough to offer the capabilities described in the law. Regression to the old standard would thwart both the spirit and letter of the law.

In short, providers are keen to go back to a world where the Commission praised their limited deployment efforts and heavily underestimated the bandwidth needed to have advanced telecommunications capability. Instead, the Commission should build on the improvements made in the Sixth Report. Chief among them is defining advanced telecommunications capability in a way that adheres to the specific statutory language. Congress wisely placed equal emphasis on ensuring that before a user could be said to have advanced telecommunications capability, a user had to have the ability to both originate and receive a variety of content. This two-way capability lies at the heart of the Internet, differentiating it from the communications mediums of the past. With an accurate definition of the speeds necessary to "originate and receive high-quality voice, data, graphics, and video," the Commission can finally provide Congress with an accurate assessment on whether advanced telecommunications capability is being to all Americans in a reasonable and timely fashion. In these comments, we offer clear evidence that the conclusion of the Sixth Report was correct, and that a negative finding is also the appropriate conclusion make the to in current report.

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#### I. INTRODUCTION

In response to the Commission's first accurate Section 706 determination, certain large broadband providers have criticized the assessment of the *Sixth Report* in hopes of turning back the clock. The Commission must reject these self-interested requests. While many of these large incumbent operators agreed with the conclusions of prior Section 706 reports, it is now quite clear that in these prior determinations the Commission misinterpreted Congressional intent, offered poor and unconvincing justification and failed to recognize the market realities faced by consumers. The *Sixth Report* remedied many of these shortcomings; most notably by rooting the assessment in a more rational definition of the transmission speeds necessary to adhere to the specific capability-based definition provided by Congress. Based on this correct interpretation of the statute, the Commission had no choice but to find that advanced telecommunications capability is *not* being deployed to all Americans in a reasonable and timely fashion. We applaud the Commission for taking this step. By graduating to a definition that better reflects the plain

language of the law, the Commission can finally make accurate and complete determinations about the extent to which advanced two-way communication technologies are being deployed in the United States.

#### II. DISCUSSION

# A. The Commission Should Clarify the Distinct Goals of the Universal Service Fund's National Availability Target and the Floor for Section 706 Determinations

The Commission stated that they hoped to avoid "confusion" by creating uniformity between the speed requirements of advanced telecommunications capability and the initial national broadband availability target.<sup>1</sup> Instead, it appears this action has actually created confusion amongst commenters.<sup>2</sup> As we noted in our initial comments, the definition of advanced telecommunications capability offered a distinct approach that was not meant to ensure every consumer access to some basic level of connectivity at comparable speed to others.<sup>3</sup> Congress was interested in how many consumers have access to robust, *advanced* connectivity. In short, "a speed comparable to what the typical broadband subscriber receives today" is not the definition for "advanced telecommunications capability" provided by Congress.<sup>4</sup>

<sup>&</sup>lt;sup>1</sup> Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, Seventh Broadband Deployment Notice of Inquiry, GN Docket No. 10-159, para. 14 (rel. Aug. 6, 2010) ("NOP").

<sup>&</sup>lt;sup>2</sup> For instance, Verizon states, "the Commission should more expressly limit any negative findings under section 706 to those few areas (covering less than 5 percent of the population) that remain truly unserved today and are unlikely to be reached by private investment in the near future." Comments of Verizon and Verizon Wireless at 19 ("Verizon Comments"). Citations taking the form "Comments of..." refer to the initial comments in the instant proceeding.

<sup>&</sup>lt;sup>3</sup> Comments of Free Press at 3-4.

<sup>&</sup>lt;sup>4</sup> Federal Communications Commission, *Connecting America: The National Broadband Plan*, Omnibus Broadband Initiative, March 16, 2010, p. 135 ("NBP").

The creation of a uniform speed benchmark created a misunderstanding of the purpose of Section 706, and has served to obscure the primary components of this Congressional directive. The legislative language asks the Commission to "determine whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion." The three primary components of this Congressional request are advanced telecommunications capability, being deployed to All Americans, in a reasonable and timely fashion. We will address why each of these components is not being met below.

### B. The Commission Should Further Improve the Section 706 Report Threshold Speed and Reject Calls to Return to the Flawed Approach of Prior Reports

In the *Sixth Report*, the Commission determined that advanced telecommunications capability was not being deployed in a reasonable and timely fashion.<sup>6</sup> Congress' defined "advanced telecommunications capability" as a service that "enables users to originate and receive high-quality voice, data, graphics, and video." The Commission updated the speed necessary to achieve these capabilities from an advertised 200 Kbps symmetrical connection to an actual 4 Mbps downstream and 1 Mbps upstream connection. On the downstream side, this revision represents a significant improvement towards providing a definition that adheres to Congressional intent. Nonetheless, the Commission must recognize the importance Congress

<sup>&</sup>lt;sup>5</sup> 47 U.S.C. § 1302(b)

<sup>&</sup>lt;sup>6</sup> Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, A National Broadband Plan for Our Future, Sixth Broadband Deployment Report, GN Docket Nos. 09-137, 09-51, 25 FCC Rcd 9556, 9557 (rel. July 20, 2010) ("Sixth Report").

<sup>&</sup>lt;sup>7</sup> 47 U.S.C. § 1302(d)(1).

<sup>&</sup>lt;sup>8</sup> Sixth Report at para. 11.

placed on origination capabilities. These "speaking" capabilities differentiate the Internet from prior one-to-many communication mediums. To adhere to Congressional intent, the Commission's definition must place equal recognition on origination capabilities. This means increasing the upstream speed to match that of the downstream. The Commission must also consider whether 4 Mbps is truly sufficient to transmit "high-quality video." In the initial comments, numerous entities recognized the need for a robust definition for advanced telecommunications capability. The Commission should take heed of these recommendations and build upon the significant improvements made in the *Sixth Report*.

Unfortunately, in their comments large broadband providers advocate for the Commission to return to a far inferior speed definition that characterized the prior flawed reports. These companies would have the Commission believe that any connection a provider deems "useful" is of sufficient quality to meet Congress's specific capabilities-based definition. This self-interested advocacy ignores the plain reading of the law and should be rejected. Congress was prescient in focusing on the capabilities of such a service. While this capabilities-based definition was meant to be enduring, it cannot be said that the Commission's current

<sup>&</sup>lt;sup>9</sup> NOI at n. 16. See also Comments of Free Press, Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, A National Broadband Plan for Our Future, GN Docket Nos. 09-137, 09-51, p. 14 ("Sixth 706 Comments").

<sup>&</sup>lt;sup>10</sup> See e.g. Comments of National Telecommunications Cooperative Association at 3; Comments of the Oregon Telecommunications Association at 4; Comments of Independent Telephone & Telecommunications Alliance at 5; Comments of the Fiber-to-the-Home Council at 5

<sup>&</sup>lt;sup>11</sup> See e.g. Comments of AT&T at 22-24; Verizon Comments at 21-23.

<sup>&</sup>lt;sup>12</sup> Verizon Comments at 3.

definition is too "forward-looking."<sup>13</sup> These were services Congress envisioned consumers using more than *fourteen* years ago. For the Commission to finally rely on a definition that more closely comports with the speed needed to enjoy such capabilities hardly means the Commission was too ambitious. This misguided and narrow-minded opinion is not only wrong, but also disconcerting given that these same entities are some of the nation's largest broadband providers.

AT&T argues the upstream definition should be lowered because their DSL connections with *advertised* upstream speeds of 768 Kbps are still "adequate" for consumers.<sup>14</sup> AT&T attempts to justify this assertion by pointing out that "Skype recommends upstream speeds of...512 Kbps for higher-quality video calls."<sup>15</sup> In fact, Skype recommends these speeds as the "minimum internet speed to ensure *good* quality."<sup>16</sup> Furthermore, Skype has recently stated that they "recommend sustained 1 Mbps symmetrical bandwidth or higher" for their high-quality video calls.<sup>17</sup> AT&T then attempts to convince the Commission that 2 Mbps is sufficient to "transmit reasonable-quality standard definition or DVD video."<sup>18</sup> Yet the next paragraph in the white paper used by AT&T to justify this assertion states that high-definition "[a]ction video requires anywhere from 4 Mbps to 6 Mbps. The maximum HD performance is achieved with 1080p60 which requires about two times the above bitrates."<sup>19</sup> Given the Commission's own

<sup>&</sup>lt;sup>13</sup> *Ibid.* at 22.

<sup>&</sup>lt;sup>14</sup> Comments of AT&T at 23.

<sup>&</sup>lt;sup>15</sup> *Ibid*.

<sup>&</sup>lt;sup>16</sup> See http://www.skype.com/intl/encsupport/user-guides/skype-for-mac/call-quality/poor-quality-video/connection/#guideContents (Accessed Oct. 3, 2010) [emphasis added].

<sup>&</sup>lt;sup>17</sup> Peter Parkes, "HD video calls with Skype coming soon," *The Big Blog*, Skype, January 5, 2010.

<sup>&</sup>lt;sup>18</sup> Comments of AT&T at 22. It is also unclear how AT&T level's this with their assertion regarding the sufficiency of connections with an advertised upstream speed of 768 Kbps.

Haivision Network Video, "White Paper: H.264 Video Compression," August 2010, p. 5, available at http://www.haivision.com/download-center/application-(continued on next page)

recognition that "streaming high-definition video requires a connection of at least 5-10 Mbps", it is clear that a regression in defining the speeds needed to attain advanced telecommunications capability would also represent a step backwards in fulfilling the assessment requested by Congress.<sup>20</sup>

#### The Commission Should Reject Calls to Offer a. Varied Interpretations of Speed

In light of the Commission's more accurate interpretation of the speeds necessary to have advanced telecommunications capability, mobile network operators urged the Commission to create a distinct speed definition for mobile networks. For instance, U.S. Cellular requests that the Commission "establishes a lower benchmark for mobile wireless broadband." The Commission should reject these requests. Section 706 specifically defines advanced telecommunications capabilities as "using any technology",22 We encourage the Commission to include any network that adheres to the tenets of Section 706. Some mobile networks will certainly reach this threshold at some point in the future. However, until such time as they can support the capabilities envisioned by Congress, mobile connections that do not meet the threshold should not count for the purposes of a Section 706 determination. Ironically, AT&T points to the existence of mobile devices such as the iPhone to justify their assertion that the tenets of Section 706 are being met.<sup>23</sup> Yet, this is the same device that does not allow the video chat "FaceTime" function, regardless of video quality, to be used over AT&T's mobile wireless

(footnote continued)

notes/WP\_VideoCompression.pdf

<sup>&</sup>lt;sup>20</sup> *NOI* at n. 16.

<sup>&</sup>lt;sup>21</sup> Comments of U.S. Cellular Corp. at 4.

<sup>&</sup>lt;sup>22</sup> 47 U.S.C. § 1302(d)(1).

<sup>&</sup>lt;sup>23</sup> Comments of AT&T at 21.

network.<sup>24</sup> This shortcoming is one among many that illustrates why mobile broadband connections do not yet offer the speeds necessary to merit inclusion with other connections that do offer advanced telecommunications capability.

The Commission should also be wary of the incumbents arguments offered in this proceeding surrounding the measurement of actual speeds. We have long cautioned the Commission about relying on self-initiated speed tests.<sup>25</sup> These tests can offer consumers some insight into the speed of their connection but are by no means data that should be relied upon for responsible policymaking. The Commission instead relied on comScore data for its initial assessment of actual speeds, which found them to be about 50 percent of advertised. This finding has caused network operators to criticize this data.<sup>26</sup> While some of this criticism is well founded, the Commission should set aside this line of argument as immaterial to the central question, as well as hypocritical. For example, AT&T points to data from browser based speed tests to assert, "broadband speeds are considerably higher than the data on which the Commission previous relied."<sup>27</sup> The Commission should reject this assertion. AT&T themselves have explained to the Commission, on numerous occasion, why this type of speed test information should not be given weight.<sup>28</sup>

<sup>&</sup>lt;sup>24</sup> See e.g. Nilay Patel, "FaceTime video calling added to iPhone 4... and it's WiFi-only," *Engadget*, June 7, 2010.

<sup>&</sup>lt;sup>25</sup> See e.g. Further Reply Comments of Free Press, In the Matter of Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscribership Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscribership, WC Docket No. 07-38, pp. 12-14 (Sept. 2, 2008).

<sup>&</sup>lt;sup>26</sup> See e.g. Peter Sevcik, "comScore ISP Speed Test Accuracy," March 2010 (Paid for by the National Cable and Telecommunications Association).

<sup>&</sup>lt;sup>27</sup> Comments of AT&T at 28.

<sup>&</sup>lt;sup>28</sup> See Comments of the AT&T Inc., In the Matter of Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, (continued on next page)

Point in time measurements of individual users' broadband experiences would not produce meaningful results because the "actual" information transfer speed that a particular customer experiences at any time is a function of myriad factors, many of which are beyond the broadband service provider's control and mask the true capabilities of the service, including the quality of the wiring at the consumer's premises, the computer and networking equipment used by the consumer, the software and applications currently being run by the consumer, general Internet congestion and the responsiveness of the particular servers and networks the customer seeks to access, as well as many technology-specific factors, including how many other subscribers are using the same shared facilities (e.g., cable modem), the consumer's distance from the provider's facilities (e.g., DSL), atmospheric conditions (e.g., satellite) and the capabilities of subscriber-purchased devices (e.g., wireless devices).

Instead of utilizing the unreliable information now pushed by AT&T, the Commission should continue to move forward on its efforts to do the hardware based testing that removes many of the factors that "mask the true capabilities of the service." We also restate our call for the Commission to follow through on its 2008 promise to collect actual availability data in addition to the much-welcomed reforms of Form 477 subscribership data.

# C. The Commission Should Ensure Section 706's Requirement that Advanced Telecommunications Capability "is being deployed to all Americans" Receives Proper Interpretation and Consideration

In their efforts to derail an accurate determination by the Commission, large broadband providers offer a bizarre and incorrect interpretation of Section 706's legislative language. Carriers are asking the Commission to not focus on the number of Americans currently without advanced telecommunications capability. Verizon states that the "is being deployed" language is

Improvement of Wireless Broadband Subscribership Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscribership, WC Docket No. 07-38, pp. 3-5 (2008).

<sup>(</sup>footnote continued)

<sup>&</sup>lt;sup>29</sup> *Ibid. See* https://www.testmvisp.com/ (Accessed Oct. 5, 2010).

"a progressive tense formulation that plainly contemplates a forward-looking, ongoing effort." In fact, a plain reading of any description of English language verb tenses illustrates that this language is present progressive tense rather than future progressive tense. If it were the latter, the language would read, "will be deployed." In its current form, this language is clearly referring to the present level of deployment. The Commission should reject this misinterpretation of the unambiguous statutory language.

Given Congress' focus on the present day deployment, we agree with commenters who recommend the Commission strive to rely on the most up-to-date and accurate data possible of *current* deployment levels.<sup>32</sup> This should include the most recent Form 477 data, which the Commission appears to be analyzing in a more timely fashion. This subscribership information can provide data specific to aiding in a Section 706 determination, with appropriate caveats. This is made apparent in the model the Commission relied on for its *Sixth Report*, which found that 95 percent of homes likely have access to infrastructure capable of offering actual speeds of 4 Mbps downstream and 1 Mbps upstream.<sup>33</sup> However, the model's authors concluded that, due to the use of Form 477 subscribership data, the model's deployment conclusion is "likely to

<sup>&</sup>lt;sup>30</sup> Verizon Comments at 18.

<sup>&</sup>lt;sup>31</sup> See e.g. Purdue University, "Sequence of Tenses," Online Writing Lab, April 17, 2010, available at http://owl.english.purdue.edu/owl/resource/601/01/.

<sup>&</sup>lt;sup>32</sup> See e.g. Comments of the National Cable and Telecommunications Association at 3-4; Comments of the United States Telecommunications Association at 4-6.

<sup>&</sup>lt;sup>33</sup> Federal Communications Commission, "The Broadband Availability Gap," OBI Technical Paper No. 1, April 2010, p. 17.

overestimate the availability of service."<sup>34</sup> Numerous factors make the 95 percent conclusion even more unlikely, something the Wireline Bureau has itself noted.<sup>35</sup>

### D. The Present Deployment Level of Advanced Telecommunications Capability Is in No Way Occurring in a "reasonable and timely fashion"

Large broadband providers have once again sought to create facts about broadband competition via constant repetition of misinformation in effort to convince the Commission consumers have numerous options to gain access to advanced telecommunications capability. This well-worn tactic was already rejected in the *Sixth Report*, and certainly deserves no weight in this proceeding. Countless authoritative bodies have recognized the duopoly that exists in local broadband markets.<sup>36</sup> These technologies do not offer the speeds necessary to enjoy the

<sup>&</sup>lt;sup>34</sup> *Ibid.* at 24.

<sup>&</sup>lt;sup>35</sup> See Testimony of S. Derek Turner, Research Director, Free Press, Regarding The National Broadband Plan: Deploying Quality Broadband Services To The Last Mile, United States House of Representatives Committee on Energy and Commerce, Subcommittee on Communications, Technology and the Internet, April 21, 2010.

<sup>&</sup>lt;sup>36</sup> Comments of the National Telecommunications and Information Administration, In the Matter of A National Broadband Plan for Our Future, GN Docket No. 09-51, p. 6 (Jan. 4, 2010). ("We urge the Commission to examine what in many areas of the country is at best a duopoly market and to consider what, if any, level of regulation may be appropriate to govern the behavior of duopolists."); Ex Parte of the United States Department of Justice, In the Matter A National Broadband Plan for Our Future, GN Docket No. 09-51, p. 14 (Jan. 4, 2010). ("Unfortunately, even in areas where two wireline networks are deployed, consumers seeking to use the most bandwidth-intensive applications may not have more than a single viable choice."); Comments of the Federal Trade Commission, In the Matter of A National Broadband Plan for Our Future, GN Docket No. 09-51, p. 4 (Sept. 4, 2009). ("Currently, relatively large market shares for fixed, wireline broadband services are typically held by a single incumbent cable operator and a single incumbent telephone company in each geographic area."); Prepared Remarks of Chairman Julius Genachowski, The Brookings Institution, Sept. 21, 2009. ("One reason has to do with limited competition among service providers. As American consumers make the shift from dial-up to broadband, their choice of providers has narrowed substantially."); Commission Open Meeting, Presentation on the Status of the Commission's Processes for Development of a National Broadband Plan, p. 135 (Sept. 29, 2009). ("At most 2 providers of fixed broadband (continued on next page)

capabilities envisioned by Congress.<sup>37</sup> These entities primarily point to the mere existence of mobile wireless and satellite as justification for their claim.<sup>38</sup> Even Clearwire's existing 4G network only offers advertised speeds of 3-6 Mbps downstream and 1 Mbps upstream and thus fails to meet the capability standard set in Section 706.<sup>39</sup> Furthermore, the service is largely

<sup>(</sup>footnote continued)

services will pass most homes").

<sup>&</sup>lt;sup>37</sup> We have provided the Commission with an abundance of evidence illustrating this fact. See e.g. Reply Comments of Free Press, In the Matter of A National Broadband Plan for Our Future, GN Docket No. 09-51, pp. 37, n. 89, 35-53 (July 21, 2009) ("NBP Reply Comments"); Comments of Free Press, In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, A National Broadband Plan for Our Future, GN Docket Nos. 09-137, 09-51, pp. 17-54 (Sept. 4, 2009) ("706 Comments"); Reply Comments of Free Press, In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, A National Broadband Plan for Our Future, GN Docket Nos. 09-137, 09-51, pp. 9-11 (Oct. 2, 2009); Comments of Free Press, In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, A National Broadband Plan for Our Future, International Comparison and Survey Requirements in the Broadband Data Improvement Act, GN Docket Nos. 09-137, 09-51, 09-47, pp. 4-6 (Dec. 4, 2009).

<sup>&</sup>lt;sup>38</sup> It appears that Broadband over Powerline has finally been removed from this phantom competitors list, with good reason. See Kelly Teal, "BPL Death Knell Sounds With Latest Network Shutdown," Von Xchange, April 13, 2010. Even the few irrevelant statistics preferred by the industry are disappearing. See e.g. Stacey Higginbotham, "Telco Lobby Loses its Best Stats as the U.S. Falls in Broadband Ranking, GigaOm, July 19, 2010; Antonio Gonsalves, "China Overtakes U.S. in Number of Broadband Lines," Information Week, Sept. 26, 2008.

<sup>&</sup>lt;sup>39</sup> See e.g. Maisie Ramsay, "Clearwire's Burden" the 4G Coverage Gap," Wireless Week, Sept. 25, 2010.

treated as complement to wireline offerings, not a substitute.<sup>40</sup> Comcast's wholesale offering from the same network is "sold in conjunction with [their] high speed data products."<sup>41</sup>

Satellite is even a less viable substitute. The numerous restrictions that characterize the service illustrate its limited functionality. The achieved speeds represent a far cry from those offered by phone or cable companies, not to mention some mobile wireless services. Wild Blue intends to offer shared advertised downstream speeds of 2 to 8 Mbps starting in 2011.<sup>42</sup> No information has been released about an increase in upstream speeds being offered but current packages max out at advertised rate of 256 Kbps.<sup>43</sup> The best-kept secret of the industry is the fixed total capacity of the technology. In other words, even if this technology were popularized, the technology would quickly face bandwidth issues that could not be solved by a relatively inexpensive upgrade to its backhaul connection. With far inferior speeds, high equipment costs and onerous restrictions, satellite represents a last resort for many consumers looking to move beyond a dial-up connection. No reasonable observer can claim it provides the type of robust connection needed for advanced telecommunications capability.

While the phone and cable companies attempt to convince the Commission of the bevy of broadband options available to consumers, this already unhealthy duopoly market is quickly turning to a cable modem monopoly. The reason behind this development is that ADSL offerings can simply no longer provide the speeds necessary to compete with cable modem

<sup>&</sup>lt;sup>40</sup> See e.g. Reply Comments of Free Press, In the Matter of *Preserving the Open Internet*, *Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, pp. 44-48 ("*Net Neutrality Reply Comments*").

<sup>&</sup>lt;sup>41</sup> They went on to state that this "makes a lot of sense for the consumer". *See* Comcast Corp., Q4 2009 Earnings Call Transcript, Feb. 3, 2010.

<sup>&</sup>lt;sup>42</sup> See e.g. "ViaSat Said to Buy Wild Blue, A Satellite Internet Provider, for \$568 million," *New York Times,* Oct. 1, 2009.

<sup>&</sup>lt;sup>43</sup> See http://www.wildblue.com/getWildblue/details.jsp (accessed Oct. 5, 2010).

service. We have offered the Commission considerable evidence illustrating the emerging dominance of cable modem service. 44 A full 89 percent of residential connections with download speeds above 6 Mbps are cable modem connections. 45 With DSL networks being extremely limited in offering higher speeds, 46 cable modem and FTTx networks are the only means by which consumers can gain access to the capabilities envisioned by Congress. Unfortunately, it appears that in 60 percent of the country consumers will not gain access to an FTTx network. 47 Furthermore, when it comes to the more robust FTTP networks, only 15 percent of customers will have access to this viable high-speed alternative. 48 As the National Broadband Plan recognized "in areas that include 75 percent of the population, consumers will likely have only one service provider (cable companies DOCSIS 3.0-enabled infrastructure) that can offer very high peak download speeds. 349

This fact directly contradicts the supposed extensive deployments of robust connections touted by operators in this proceeding.<sup>50</sup> In reality, the past year has been characterized far more by deployments that have been slowed or ceased all together than true advances. Verizon

<sup>&</sup>lt;sup>44</sup> See e.g. Reply Comments of Free Press, In the Matter of Framework for Broadband Internet Service, GN Docket No. 10-127, pp. 31-34 (Aug. 12, 2010); Sixth 706 Comments at 45-52.

<sup>&</sup>lt;sup>45</sup> Wireline Competition Bureau, "Internet Access Services: Status as of June 30, 2009," Industry Analysis and Technology Division, September 2010, p. 14 ("477 Report")

<sup>&</sup>lt;sup>46</sup> Despite Verizon's claims to the contrary (*See* Verizon Comments at 22), their latest DSL offering represents a last gasp that demonstrates the distance limitations of copper networks. *See* Carol Wilson, "Has Verizon Made Its Last DSL Boost?" *Light Reading*, Aug. 30, 2010; Sean Buckley, "Verizon's 10, 15 Mbps DSL Service is great if you can actually get it," *FierceTelecom*, Sept. 3, 2010.

<sup>&</sup>lt;sup>47</sup> Craig Moffett, "Web Video: Friend or Foe...And to Whom?" *Bernstein Research*, October 2009, p. 14.

<sup>48</sup> Ihid.

<sup>&</sup>lt;sup>49</sup> *NBP* at 42.

<sup>&</sup>lt;sup>50</sup> See e.g. Comments of Comcast at 3-4: Comments of AT&T at 9-12.

announced they would not be bringing FiOS to new areas and AT&T announced a slow down in their deployment of U-Verse.<sup>51</sup> This comes even as both are losing a substantial number of DSL customers to cable modem service.<sup>52</sup> It seems the primary phone companies making even incremental upgrades are those who have received government funds or have been required to by the Commission.<sup>53</sup>

In many ways, cable industry deployments present a similar picture. Commenters are quick to note the deployments of DOCSIS 3.0 by cable operators. However, they are far less interested in discussing the cost of these upgrades, unlike with previous phone company upgrades.<sup>54</sup> The reason for this omission is that these upgrades are of minimal cost.<sup>55</sup> Cable operators estimate the cost to be a mere \$10 per home passed.<sup>56</sup> Nonetheless, this hasn't

<sup>&</sup>lt;sup>51</sup> See Peter Svennson, "Verizon winds down expensive FiOS expansion," Associated Press, March 26, 2010; Matthew Lasar, "AT&T: drop net neutrality or U-verse gets it," Ars Technica, June 15, 2010.

<sup>&</sup>lt;sup>52</sup> Reply Comments of Free Press, In the Matter of *Framework for Broadband Internet Service*, GN Docket No. 10-127, pp. 32-33 (Aug. 12, 2010).

See Applications Filed by Frontier Communications Corporation and Verizon Communications Inc. for Assignment or Transfer of Control, Memorandum Opinion and Order, WC Docket No. 09-95 25 FCC Rcd 5972, Appendix C (Rel. May 21, 2010); "Frontier Communications Praised by West Virginia Governor Joe Manchin," Press Release, Jun 15, 2010; Applications Filed for the Transfer of Control of Embarq Corporation to CenturyTel, Inc., Memorandum Opinion and Order, WC Docket No. 08-238, 24 FCC Rcd 8741, Appendix C (Rel. June 25, 2009); Department of Commerce, "Secretary Locke Announces Recovery Act Investments To Expand Broadband Internet Access And Spur Economic Growth," Press Release, Sept. 27, 2010.

<sup>&</sup>lt;sup>54</sup> See e.g. Comments of AT&T at 9-12.

<sup>&</sup>lt;sup>55</sup> See Sixth 706 Comments at 37-41.

<sup>&</sup>lt;sup>56</sup> Comcast recently stated their upgrade to DOCSIS 3.0 would cost \$500 million. *See* Comcast Corp., Fourth Quarter 2009 Earnings Call, Feb. 3, 2010. Comcast passes 51.233 million homes. This means the cost per home passed is a mere \$9.76. This figure aligns with other public estimates. *See* Comcast Corporation, Trending Schedule, Fourth Quarter 2009. *See also* Jeff Baumgartner, "Charter Talks Docsis Costs," *Light Reading*, Sept. 11, 2008.

prevented them from charging consumers exorbitant prices for higher speed services.<sup>57</sup> While some cable operators have plans underway to make the incremental upgrade across much of their footprint, others see no need for such an effort. Time Warner Cable has stated their plans to make only "surgical" upgrades.<sup>58</sup> In other words, only in areas where the competitive threat of FTTx necessitates a need to spend any money upgrading their network. Otherwise, they see their existing speed offering, which peak at advertised speeds of 10 Mbps downstream and 512 Kbps upstream, as entirely sufficient.<sup>59</sup> This fact lies at the heart of the reason U.S. cable operators were instrumental in *slowing* CableLabs official release of channel bonding technology.<sup>60</sup>

Furthermore, those consumers fortunate enough to have access to these higher speeds being offered in select areas by phone and cable companies have limited options when seeking out higher levels of upstream bandwidth. For instance, Suddenlink currently offers the highest advertised downstream speeds, amongst major broadband providers, with a 107 Mbps, for \$120 per month. Yet the package only provides customers with an advertised upstream speed of 5 Mbps.<sup>61</sup> AT&T's fastest U-Verse package, available only to certain customers, can offer

<sup>&</sup>lt;sup>57</sup> See e.g. Sixth 706 Comments at 51; Net Neutrality Reply Comments at 50.

<sup>&</sup>lt;sup>58</sup> See e.g. Karl Bode, "Time Warner Cable: DOCSIS 3.0 'Soon'," DSLReports.com, April 30, 2009.

http://www.timewarnercable.com/East/learn/hso/roadrunner/speedpricing.html (Accessed Oct. 5, 2010). *See e.g.* Remarks of Landell Hobbs, Chief Operating Officer, Time Warner Cable, Morgan Stanley Technology, Media & Telecom Conference, March 1, 2010 (comments made at approximately one hour and 26 minutes). ("The reason we are being surgical is that, by and large, I compete against DSL in my footprint. And I'm very successful against DSL. My existing Roadrunner product is a better fundamental product when I am competing against DSL and taking share. So there I'm successful and product is working fine.")

<sup>&</sup>lt;sup>60</sup> See Sixth 706 Comments at 52-54.

<sup>&</sup>lt;sup>61</sup> See e.g. Todd Spangler, "Suddenlink Debuts 107-Meg Broadband in Texas," *Multichannel News*, March 30, 2010.

advertised downstream speeds of 24 Mbps, while upstream speeds are limited to 3 Mbps. <sup>62</sup> The recent Form 477 data shows that only *3 percent* of subscribers have an advertised upload speed of 3 Mbps or higher, and only *0.3 percent* have advertised upstream capabilities of 6 Mbps or higher. <sup>63</sup> Even though the limited upstream offerings of operators have slowed the adoption of true advanced telecommunications capability, consumers are still showing a thirst for the higher speeds available primarily from cable operators. <sup>64</sup> In other words, while consumers vote with their pocketbooks for higher speed broadband, few offerings have even advertised upstream speeds that are capable of providing advanced telecommunications capability. Furthermore, those offerings come at a hefty price to the consumer. <sup>65</sup>

#### III. CONCLUSION

Taken together it is clear that advanced telecommunications capability, as properly defined, is not being deployed to all Americans in a reasonable and timely fashion. Few consumers have access to connections capable of advanced telecommunications capability. The Commission should once again find that advanced telecommunications capability is not being deployed to all Americans in a reasonable and timely fashion.

<sup>62</sup> See e.g. Marguerite Reardon, "AT&T's U-verse gets 24Mbps downloads," CNet, March 29, 2010.

<sup>&</sup>lt;sup>63</sup> 477 Report at Table 9.

<sup>&</sup>lt;sup>64</sup> See e.g. Sixth 706 Comments at 49-50; Reply Comments of Free Press, In the Matter of Framework for Broadband Internet Service, GN Docket No. 10-127, pp. 31 (Aug. 12, 2010).

<sup>&</sup>lt;sup>65</sup> See Sixth 706 Comments at 7-9.

Adam Lynn Free Press 501 Third Street, NW Suite 875 Washington, DC 20001 202-265-1490		Respectfully Submitted,
October 5, 2010  Free Press 501 Third Street, NW Suite 875 Washington, DC 20001		/s/
	October 5, 2010	Free Press 501 Third Street, NW Suite 875 Washington, DC 20001